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* * * * * * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09 ZDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
 saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
 now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 26 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27 Oct 21 EVENTLINE has been reloaded
NEWS 28 Oct 24 BEILSTEIN adds new search fields
NEWS 29 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT
NEWS 32 Nov 25 More calculated properties added to REGISTRY
NEWS 33 Dec 02 TIBKAT will be removed from STN
NEWS 34 Dec 04 CSA files on STN
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36 Dec 17 TOXCENTER enhanced with additional content
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 38 Dec 30 ISMEC no longer available
NEWS 39 Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003
NEWS 41 Jan 21 PHARMAML offering one free connect hour in February 2003
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
 ENERGY, INSPEC
NEWS 43 Feb 13 CANCERLIT is no longer being updated
NEWS 44 Feb 24 METADEX enhancements
NEWS 45 Feb 24 PCTGEN now available on STN

NEWS 46 Feb 24 TEMA now available on STN
NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 48 Feb 26 PCTFULL now contains images

| | |
|--------------|---|
| NEWS EXPRESS | January 6 CURRENT WINDOWS VERSION IS V6.01a,
CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002 |
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| NEWS INTER | General Internet Information |
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STRUCTURE FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7
DICTIONARY FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>
Uploading 10007235b.str

L1 STRUCTURE: UPLOADED

```
=> d
L1 HAS NO ANSWERS
L1          STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 07:29:10 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1538 TO ITERATE

65.0% PROCESSED    1000 ITERATIONS          0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                      BATCH **COMPLETE**
PROJECTED ITERATIONS:      28408 TO     33112
PROJECTED ANSWERS:          0 TO         0

L2          0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 07:29:14 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 29427 TO ITERATE

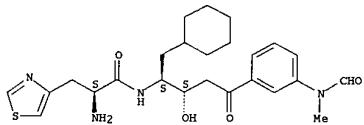
100.0% PROCESSED    29427 ITERATIONS        7 ANSWERS
SEARCH TIME: 00.00.02

L3          7 SEA SSS FUL L1

=> d scan
```

L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Formamide, N-[3-[4-[(2-amino-1-oxo-3-(4-thiazolyl)propyl)amino]-5-cyclohexyl-2,4,5-trideoxy-L-threo-pentonoyl]phenyl]-N-methyl-, (S)- (9CI)
 MF C25 H34 N4 O4 S

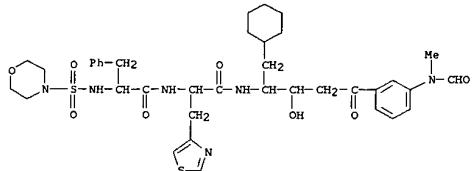
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):6

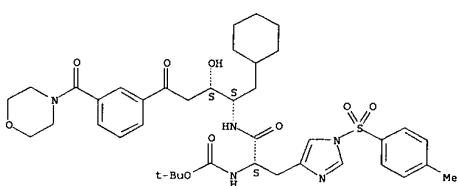
L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Formamide, N-[3-[5-cyclohexyl-2,4,5-trideoxy-4-[(N-[N-(4-morpholinylsulfonyl)-L-phenylalanyl]-3-(4-thiazolyl)-L-alanyl]amino]-L-threo-pentonoyl]phenyl]-N-methyl- (9CI)
 MF C38 H50 N6 O8 S2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

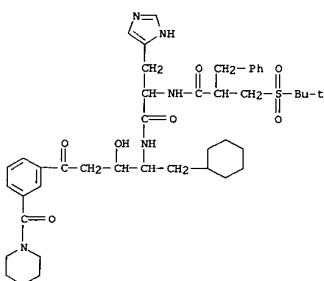
L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Morpholine, 4-[3-[5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethoxy)carbonyl]amino)-3-[1-(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]-1-oxopropyl]amino]-L-threo-pentonoyl]benzoyl-, (S)- (9CI)
 MF C40 H53 N5 O9 S

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

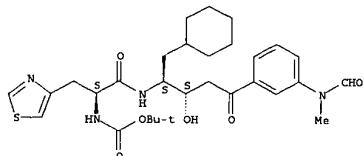
L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Morpholine, 4-[3-[5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethyl)sulfonyl)methyl]-1-oxo-3-phenylpropyl]amino]-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-L-threo-pentonoyl]benzoyl-, (S-(R*,R*))- (9CI)
 MF C42 H57 N5 O8 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Formamide, N-[3-[5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethoxy)carbonyl]amino)-1-oxo-3-(4-thiazoly)propyl]amino]-L-threopentonoyl]phenyl-N-methyl-, (S)- (9CI)
 MF C₃₀H₄₂N₄O₆S

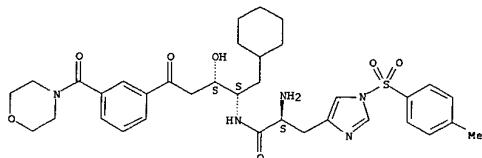
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Morpholine, 4-[(3-[(2-amino-3-[1-[(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]-1-oxopropyl]amino)-5-cyclohexyl-2,4,5-trideoxy-L-threopentonoyl]benzoyl]-, (S)- (9CI)
 MF C₃₅H₄₅N₅O₇S

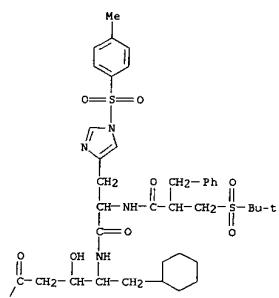
Absolute stereochemistry.



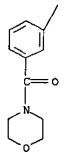
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 7 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Morpholine, 4-[(3-[(2-[(1,1-dimethylethoxy)sulfonyl]methyl)-1-oxo-3-phenylpropyl]amino)-3-[(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]-1-oxopropyl]amino]-L-threopentonoyl]benzoyl-, [S-(R*,R*)]- (9CI)
 MF C₄₉H₆₃N₅O₁₀S₂

PAGE 1-A



PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

| | | | |
|----------------------|------------|---------|--|
| => fil caplus | | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL | |
| FULL ESTIMATED COST | ENTRY | SESSION | |
| | 148.15 | 148.36 | |

FILE 'CAPLUS' ENTERED AT 07:29:38 ON 03 MAR 2003
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FILE COVERS 1907 - 3 Mar 2003 VOL 138 ISS 10
FILE LAST UPDATED: 2 Mar 2003 (20030302/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 13
L4           1 L3

=> d ibib abs hitstr
```

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1992:449265 CAPLUS
 DOCUMENT NUMBER: 117:49265
 TITLE: Preparation of dipeptide renin inhibitors
 INVENTOR(S): Toyoda, Tatsuo; Fujio, Toshihiro; Hayashi, Kunio;
 Nakamura, Masuhisa; Hashimoto, Naofumi; Shionogi and Co., Ltd., Japan
 PATENT ASSIGNEE(S): Eur. Pat. Appl., 117 pp.
 SOURCE: CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 468641 | A2 | 19920129 | EP 1991-305763 | 19910626 |
| EP 468641 | A3 | 19930113 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| CA 2045008 | AA | 19911229 | CA 1991-2045008 | 19910619 |
| US 5194608 | A | 19930316 | US 1991-719492 | 19910624 |
| AU 9179304 | A1 | 19920102 | AU 1991-79304 | 19910626 |
| AU 643036 | B2 | 19931104 | | |
| HU 58346 | A2 | 19920228 | HU 1991-2166 | 19910627 |
| JP 05009162 | A2 | 19930119 | JP 1991-156764 | 19910627 |
| JP 2951995 | B2 | 20000111 | | |
| US 5193215 | A | 19930229 | US 1992-974212 | 19921110 |
| US 5272268 | A | 19931221 | US 1992-974211 | 19921110 |
| AU 9344890 | A1 | 19931125 | AU 1993-44890 | 19930826 |
| AU 653682 | B2 | 19941006 | | |

PRIORITY APPLN. INFO.: JP 1990-172050 A 19900628
 US 1991-719492 A3 19910624

OTHER SOURCE(S): MARPAT 117:49265

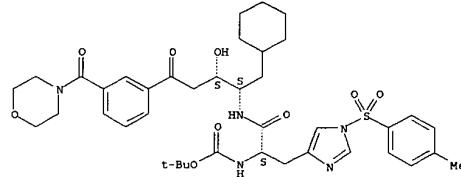
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compd. [I]: R1 = (substituted) (cyclo)alkyl, alkenyl, alkynyl, heterocyclyl; R2 = (substituted) carbamoyl, acyl, heterocyclyl, alkyl, alkylthiomethyl, alkylthio; R3 = (substituted) acyl, 5- to 6-membered heterocyclyl; R4 = RSSO₂, R₅CO₂; R5 = (substituted) aryl, (cyclo)alkyl, alkenyl, alkynyl, heterocyclyl; X = CH₂, NH, O, S; Y = CO, NHO₂, were prep'd. Thus N-(tert-butoxycarbonyl)cyclohexylalanyl was condensed with 4-acetylpyridine using NaN₃(SiMe₃)₂ and 15-crown-5 in THF to give a mixt. of aldol condensation epimers, which was treated with H₂C:C(Me)OMe and p-MeC₆H₄SO₃H to give oxazolidine II (BOC = Me₃CO₂C). This was successively reduced with NaBH₄, deketalized with HCl or CF₃CO₂H, coupled with BOC-His(Tos)-OH (Tos = tosyl), and oxidized with MnO₂ to give intermediate III. III was N-deprotected with CF₃CO₂H, acylated with 3-(S-butyryl)sulfuric-1-25-phenylpropionic acid, and N-deprotected with pyridinium chlorochromate to give title compd. IV. I at 15 mg/kg orally in monkeys pretreated with furosemide gave 33-99% inhibition of renin. Several I at 1-100 mg/kg orally or i.v. effectively reduced blood pressure in monkeys.

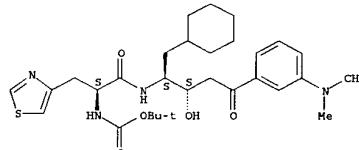
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS (Continued)
 IT 141597-33-8P 141597-38-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prep'n. of, as intermediate for peptide renin inhibitor)
 RN 141597-33-3 CAPLUS
 CN Morpholine, 4-[3-(5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethoxy)carbonyl]amino)-3-[1-(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]-1-oxopropyl]amino]-L-threo-pentonoyl]benzoyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141597-38-8 CAPLUS
 CN Formamide, N-[3-(5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethoxy)carbonyl]amino)-1-oxo-3-(4-thiazolyl)propyl]amino]-L-threopentonoyl]phenyl-N-methyl-, (S)- (9CI) (CA INDEX NAME)

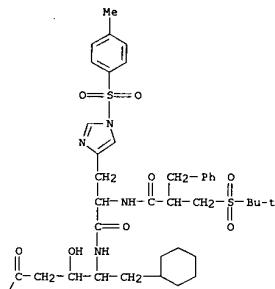
Absolute stereochemistry.



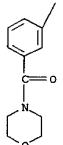
IT 141578-33-8P 141578-42-9P 141578-63-4P
 141578-90-7P 141578-99-6P
 RL: BA (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study, classified); PREP (Preparation)
 (prep'n. of, as intermediate for peptide renin inhibitor)
 RN 141578-33-8 CAPLUS
 CN Morpholine, 4-[3-(5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS (Continued)
 dimethylmethoxy)sulfonyl]methyl]-1-oxo-3-phenylpropyl]amino)-3-[1-(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl]-1-oxopropyl]amino]-L-threopentonoyl]benzoyl-, (S-(R*,R*))- (9CI) (CA INDEX NAME)

PAGE 1-A

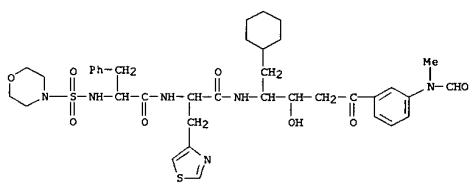


PAGE 2-A

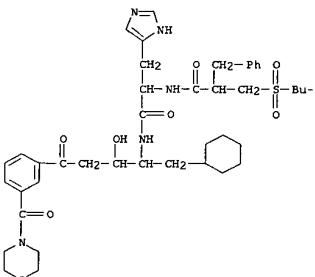


RN 141578-42-9 CAPLUS
 CN Formamide, N-[3-(5-cyclohexyl-2,4,5-trideoxy-4-[(N-[N-(4-morpholinyl)sulfonyl]-L-phenylalanyl)-3-(4-thiazolyl)-L-alanyl]amino)-L-threopentonoyl]phenyl-N-methyl- (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS (Continued)

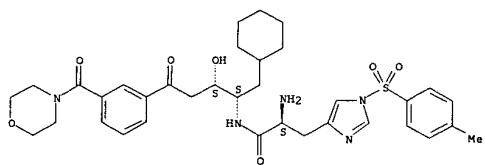


RN 141578-63-4 CAPLUS
 CN Morpholine, 4-[3-(5-cyclohexyl-2,4,5-trideoxy-4-[(2-[(1,1-dimethylethoxy)carbonyl]methyl]-1-oxo-3-phenylpropyl]amino)-3-(1H-imidazol-4-yl)-1-oxopropyl]amino]-L-threopentonoyl]-, (S-(R*,R*))- (9CI) (CA INDEX NAME)



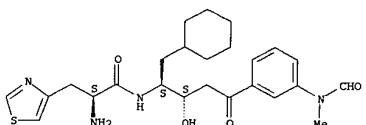
RN 141578-90-7 CAPLUS
 CN Morpholine, 4-[3-[(2-amino-3-[1-(4-methylphenyl)sulfonyl]-1H-imidazol-4-yl)-1-oxopropyl]amino]-5-cyclohexyl-2,4,5-trideoxy-L-threopentonoyl]benzoyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141578-99-6 CAPLUS
CN Formamide, N-[3-[4-[[2-amino-1-oxo-3-(4-thiazolyl)propyl]amino]-5-cyclohexyl-2,4,5-trideoxy-L-threo-pentenoyl]phenyl]-N-methyl-, (S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



| | | | |
|--|------------------|---------------|--|
| => fil reg | | | |
| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION | |
| FULL ESTIMATED COST | 5.79 | 154.15 | |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION | |
| CA SUBSCRIBER PRICE | -0.65 | -0.65 | |

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STRUCTURE FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7
DICTIONARY FILE UPDATES: 28 FEB 2003 HIGHEST RN 496269-39-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

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<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>
Uploading 10007235b.str

L5 STRUCTURE uploaded

=> d
L5 HAS NO ANSWERS
L5 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 15
SAMPLE SEARCH INITIATED 07:31:50 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 18750 TO ITERATE

5.3% PROCESSED 1000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 366817 TO 383183

PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s 15 full
FULL SEARCH INITIATED 07:31:55 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 369190 TO ITERATE

99.3% PROCESSED 366467 ITERATIONS 107 ANSWERS

100.0% PROCESSED 369190 ITERATIONS 107 ANSWERS
SEARCH TIME: 00.00.20

L7 107 SEA SSS FUL L5

=> fil calplus
'CALPLUS' IS NOT A VALID FILE NAME
SESSION CONTINUES IN FILE 'REGISTRY'
Enter "HELP FILE NAMES" at an arrow prompt (>) for a list of files
that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 148.55 302.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE 0.00 -0.65

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FILE COVERS 1907 - 3 Mar 2003 VOL 138 ISS 10
FILE LAST UPDATED: 2 Mar 2003 (20030302/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 17
L8 40 L7

```
=> s 18 and aspartyl protease
    4501 ASPARTYL
        5 ASPARTYLS
    4504 ASPARTYL
        (ASPARTYL OR ASPARTYLS)
    73802 PROTEASE
    26974 PROTEASES
    85915 PROTEASE
        (PROTEASE OR PROTEASES)
    511 ASPARTYL PROTEASE
        (ASPARTYL (W) PROTEASE)
L9            2 L8 AND ASPARTYL PROTEASE

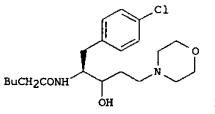
=> d ibib abs hitstr 1-2
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L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999-708752 CAPLUS
 DOCUMENT NUMBER: 131-322921
 TITLE: Preparation of hydroxypyropylamide peptidomimetics as inhibitors of aspartyl proteases
 INVENTOR(S): Dolle, Roland Ellwood, III; Cavallaro, Cullen Lee; Herpin, Timothy Felix
 PATENT ASSIGNEE(S): Pharmacopeia, Inc., USA
 SOURCE: PCT Int. Appl., 48 pp.
 CODEN: PIIXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|---------------------------|----------|
| WO 9955687 | A2 | 19991104 | WO 1999-US9070 | 19990427 |
| WO 9955687 | A3 | 20000224 | | |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MU, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TH, TR, TW, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TW, TZ | | | | |
| RW: GH, GH, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, CI, CH, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 5986102 | A | 19991116 | US 1998-69380 | 19980429 |
| AU 9938684 | A1 | 19991116 | AU 1999-38684 | 19990427 |
| US 6191277 | B1 | 20010220 | US 1999-408237 | 19990929 |
| PRIORITY APPLN. INFO.: | | | US 1998-69380 A 19980429 | |
| | | | WO 1999-US9070 W 19990427 | |

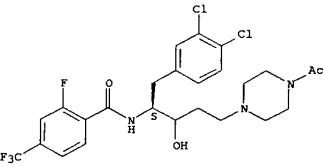
OTHER SOURCE(S): MARPAT 131:322921

GI



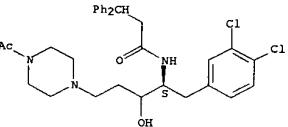
AB Compsd. $Z-NR_2CHR_1CH(OH)CH_2CH_2-Y$ [R1 = alkyl, -(CH2)n-cycloalkyl (n = 1-3), aralkyl; R2 = H or (S)-CO-L-, where [S] is a solid-supported -L- is a 2-indanyl(CH2)m (m = 0-3) or R4R5N, where R3 is alkyl, aralkyl, aryl, or aryloxalkyl and R4 and R5 are independently H, alkoxyalkyl, R3, COR3, SO2R3, 2-indanyl(CH2)m (m = 0-3) or R4R5N is morpholino or N-substituted 1-piperazinyl; Z = COR7, COOHR8O2CNHR3, COOHR8NHCOOR3, where R7 is alkyl, aralkyl, aryl, -(CH2)n-cycloalkyl, heteroaryl, 1-(carboxy, hydroxyl, 1-(carboxy

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS (Continued)



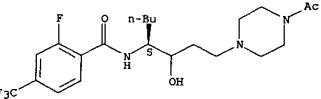
RN 248596-62-5 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-1,2,4,5-tetraoxy-1-(3,4-dichlorophenyl)-2-[(1-oxo-3,3-diphenylpropyl)amino]-, (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 248596-63-6 CAPLUS
 CN Benzamide, N-[(1S)-1-[3-(4-acetyl-1-piperazinyl)-1-hydroxypropyl]pentyl]-2-fluoro-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



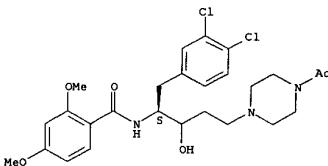
RN 248596-64-7 CAPLUS
 CN Butanamide, N-[(1S)-4-(4-acetyl-1-piperazinyl)-2-hydroxy-1-(2-phenylethyl)butyl]-3-methyl-2-[(phenylamino)carbonyl]oxy]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS (Continued)
 ester)-2-pyrrolidinyl, 2-indanyl-(CH2)n and R8 = H, alkyl, aralkyl, -(CH2)n-cycloalkyl were prep'd as inhibitors having activity against the aspartyl proteases plasminogen and cathepsin D. Thus, compd. I was prep'd by the solid-phase method and shown to inhibit plasminogen or cathepsin D at a concn. (IC50) of less than 350 micromolar.
 IT 248596-60-3P 248596-61-4P 248596-62-5P
 248596-63-6P 248596-64-7P 248596-65-8P
 248596-66-9P 248596-67-OP 248596-68-1P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses);
 I: (1-oxo-3,3-diphenylpropyl)amino- hydroxypyropylamide peptidomimetics as inhibitors of aspartyl proteases

RN 248596-60-3 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-1,2,4,5-tetraoxy-1-(3,4-dichlorophenyl)-2-[(2,4-dimethoxybenzoyl)amino]-, (3.xi.)- (9CI) (CA INDEX NAME)

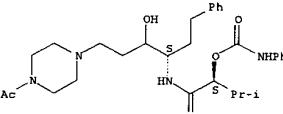
Absolute stereochemistry.



RN 248596-61-4 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-1,2,4,5-tetraoxy-1-(3,4-dichlorophenyl)-2-[(2-fluoro-4-(trifluoromethyl)benzoyl)amino]-, (3.xi.)- (9CI) (CA INDEX NAME)

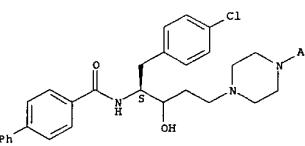
Absolute stereochemistry.

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS (Continued)



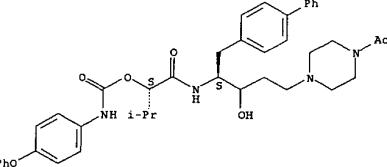
RN 248596-65-8 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-2-[(1,1'-biphenyl)-4-ylcarbonyl]amino-1-(4-chlorophenyl)-1,2,4,5-tetraoxy-, (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 248596-66-9 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-1-[(1,1'-biphenyl)-4-yl-1,2,4,5-tetraoxy-2-[(2S)-3-methyl-1-oxo-2-[(4-phenoxyphenyl)amino]carbonyl]oxy]butyl]amino-, (3.xi.)- (9CI) (CA INDEX NAME)

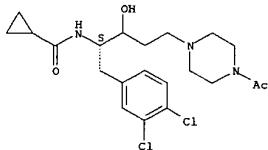
Absolute stereochemistry.



RN 248596-67-0 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-2-[(cyclopropylcarbonyl)amino]-1,2,4,5-tetraoxy-1-(3,4-dichlorophenyl)-,

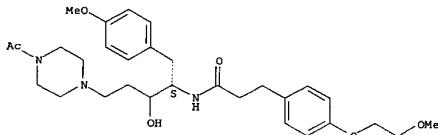
L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS (Continued)
 (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



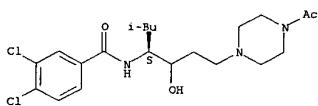
RN 248596-68-1 CAPLUS
 CN D-glycero-Pentitol, 5-(4-acetyl-1-piperazinyl)-1,2,4,5-tetra-deoxy-2-[(3-[4-(2-methoxyethoxy)phenyl]-1-oxopropyl)amino]-1-(4-methoxyphenyl)-, (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 248596-69-2 CAPLUS
 CN Benzamide, N-[(1S)-4-(4-acetyl-1-piperazinyl)-2-hydroxy-1-(2-methylpropyl)butyl]-3,4-dichloro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS (Continued)

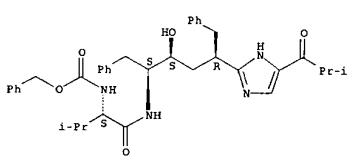
L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
 (Continued)
 1996-513518 CAPLUS
 125:157755
 TITLE: A Novel Bicyclic Enzyme Inhibitor as a Consensus Peptido-Mimetic for the Receptor-Bound Conformations of Twelve Peptidic Inhibitors of HIV-1 Protease
 AUTHOR(S): Reid, Robert C.; March, Darren R.; Dooley, Michael J.; Bergman, Doug A.; Abbenante, Giovanni; Fairlie, David P.
 CORPORATE SOURCE: Centre for Drug Design and Development, University of Queensland, Brisbane, 4072, Australia
 SOURCE: Journal of the American Chemical Society (1996), 118(36), 8511-8517
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The X-ray crystal structures of 12 substrate-based peptidic inhibitors bound in the active site of the *aspartyl protease*, HIV-1 protease, have been compared. The inhibitor-binding modes of these inhibitors are remarkably similar despite their structural diversity and conformational flexibility. This prompted the design of a bicyclic peptidomimetic inhibitor with macrocyclic components in constrained conformations that are preorganized for receptor-binding. This inhibitor is a consensus conformational mimic of the protease-bound inhibitor structures with superior properties to peptides, including stability to acidic and peptidases and antiviral activity. Each of the 15- and 16-membered rings, formed through side-chain to backbone condensation, contains two proteolytically labile peptide amide bonds and either isoleucine or valine linked via a short aliphatic spacer to tyrosine. The two cycles are connected by a hydroxyethylamine transition state isostere. Mol. modeling and NMR studies indicate that each macrocycle is a highly constrained structural mimic of tripeptide components of linear peptide substrates/inhibitors of HIV-1 protease. Thus the bicyclic peptidomimetic superimposes upon and structurally mimics acyclic hexapeptide inhibitors and their analogs. This results in functional mimicry, as demonstrated by comparable inhibition of HIV-1 protease by acyclic and cyclic mols. at nanomolar concns. The rational design of cycles which fix receptor-bound conformations of bioactive peptides has potential applications in the structural mimicry of other bioactive peptides and may facilitate rational drug design.

IT 150348-92-8, SB 206343
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (bicyclic enzyme inhibitor as consensus peptido-mimetic for receptor-bound conformations of peptidic inhibitors of HIV-1 protease)

RN 150348-92-8 CAPLUS
 CN Carbamic acid, [(1S)-1-[[((1S,2S,4R)-2-hydroxy-4-[4-(2-methyl-1-oxopropyl)-1H-imidazol-2-yl]-5-phenyl-1-(phenylmethyl)pentyl]amino]carbonyl]-2-methylpropyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

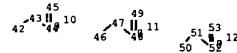
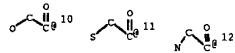
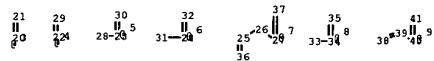
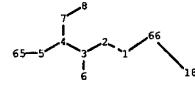
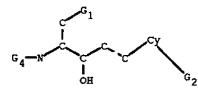
Absolute stereochemistry.



=> log y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|------------------|
| FULL ESTIMATED COST | 13.77 | 316.47 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | | SINCE FILE ENTRY |
| CA SUBSCRIBER PRICE | -1.30 | -1.95 |

STN INTERNATIONAL LOGOFF AT 07:34:18 ON 03 MAR 2003



chain nodes :

| | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 18 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | | | |
| 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 65 | 66 | | | | | | | | | | |

chain bonds :

| | | | | | | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|
| 1-2 | 1-66 | 2-3 | 3-4 | 3-6 | 4-5 | 4-7 | 5-65 | 7-8 | 9-10 | 11-12 | 12-13 | 18-66 | | | | | | | | |
| 20-21 | 22-29 | 23-28 | 23-30 | 24-31 | 24-32 | 24-33 | 25-26 | 25-36 | 26-27 | 27-37 | | | | | | | | | | |
| 33-34 | 34-35 | 38-39 | 39-40 | 40-41 | 42-43 | 43-44 | 44-45 | 46-47 | 47-48 | | | | | | | | | | | |
| 48-49 | 50-51 | 51-52 | 52-53 | | | | | | | | | | | | | | | | | |

exact/norm bonds :

| | | | | | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|
| 1-2 | 1-66 | 3-6 | 4-5 | 5-65 | 7-8 | 9-10 | 11-12 | 12-13 | 18-66 | 20-21 | 22-29 | | | | | | | | |
| 23-28 | 23-30 | 24-31 | 24-32 | 25-26 | 25-36 | 26-27 | 27-37 | 33-34 | 34-35 | | | | | | | | | | |
| 40-41 | 42-43 | 44-45 | 46-47 | 48-49 | 50-51 | 52-53 | | | | | | | | | | | | | |

exact bonds :

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|--|--|--|--|
| 2-3 | 3-4 | 4-7 | 38-39 | 39-40 | 43-44 | 47-48 | 51-52 | | | | | | | | | | | | |
|-----|-----|-----|-------|-------|-------|-------|-------|--|--|--|--|--|--|--|--|--|--|--|--|

G1:Cb,Ak

G2:[*1], [*2]

G3:N,Ak

G4:[*3], [*4], [*5], [*6], [*7], [*8], [*9], [*10], [*11], [*12]

Match level :

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1:CLASS | 2:CLASS | 3:CLASS | 4:CLASS | 5:CLASS | 6:CLASS | 7:CLASS | 8:CLASS |
| 9:CLASS | | | | | | | |

10 : CLASS 11 : CLASS 12 : CLASS 13 : CLASS 18 : CLASS 20 : CLASS
21 : CLASS 22 : CLASS 23 : CLASS 24 : CLASS 25 : CLASS 26 : CLASS 27 : CLASS
28 : CLASS 29 : CLASS 30 : CLASS 31 : CLASS 32 : CLASS 33 : CLASS 34 : CLASS
35 : CLASS 36 : CLASS 37 : CLASS 38 : CLASS 39 : CLASS 40 : CLASS 41 : CLASS
42 : CLASS 43 : CLASS 44 : CLASS 45 : CLASS 46 : CLASS 47 : CLASS 48 : CLASS
49 : CLASS 50 : CLASS 51 : CLASS 52 : CLASS 53 : CLASS 65 : CLASS 66 : Atom